Project Execution - PM Elements

Introduction

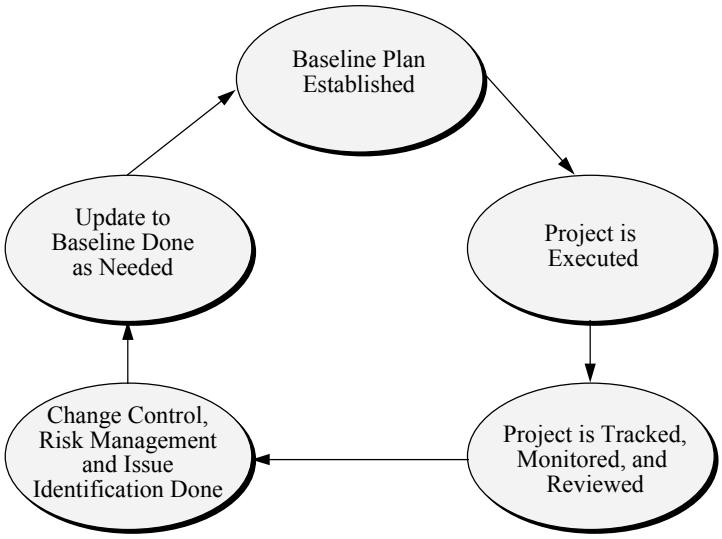
Initial Release	**1.0**
Date:	**January 1997**

What Happens During Project Execution?

Once a project in the execution phase, a project team and the necessary resources should be in place ready to perform the project activities, and the project plan should have been developed and baselined.

The project team, and specifically the project manager's focus, now shift from discovery to participating, observing, and analyzing that what was said would be done, is being done. This is graphically presented below.

Project Execution



The critical elements for the project management team are to:

- Track and monitor project activities to measure actual performance to planned performance.
- Review and communicate status and future actions on both a formal and informal basis.
- Monitor and mitigate potential risks, thus reducing their likelihood of occurrence
- Establish a change management process to control changes to the project's objectives, specifications and overall definition.
- Establish an issue tracking process to ensure that there is a central repository for project issues that are addressed in a timely fashion.
- Have in place a corrective action process to document and track plans to correct an issue that impacts the stated plan and to establish guidelines for re-planning.

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Relationship to the Planning Process

The planning processes discussed in the *Project Planning* section of this document, were conducted to ensure successful implementation of project activities. The planning process includes a group of related methods and techniques that provides the basis of defining a detailed list of activities that are to be completed, and how the work will get done, by whom, when, and for how much. In summary, the project plan development provides the specifics of:

- WHAT (Objective, scope, and statement of work)
- WHAT-IF (Contingency Plans)
- HOW (Development approach, work breakdown, processes and procedures)
- WHO (Project organization and resource schedule)
- WHEN (Schedule and milestones)
- WHERE (Facilities required)

The planning process is graphically presented on the next page.

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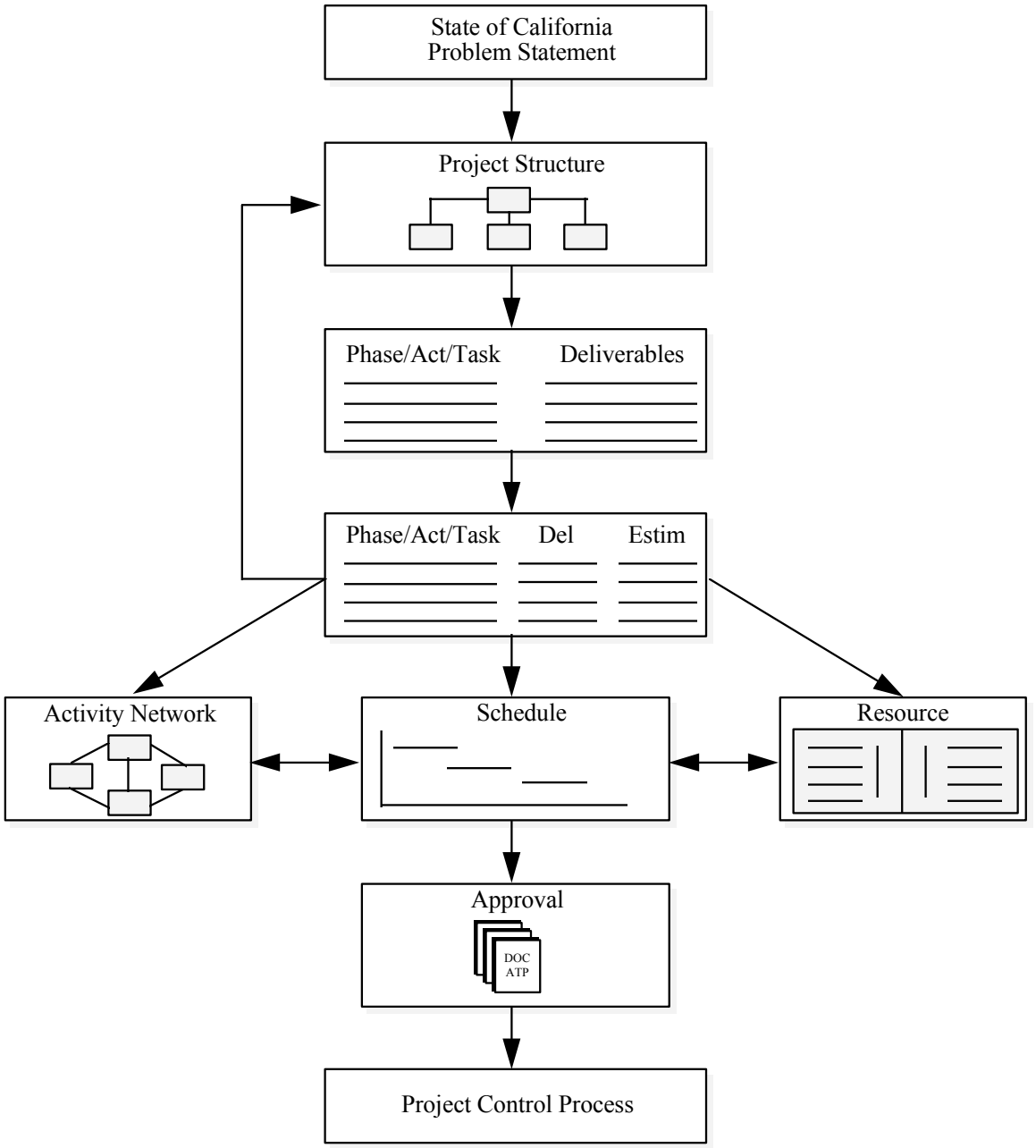
Overview of Planning Process



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Project Control Process

The project plan serves as the basis for the project's monitoring, controlling, and reporting activities. By following the plan and gathering relevant data for the status meetings and reports, information will be available to accurately identify issues and problems early, minimize project risks, and monitor, control, and report progress.

Once a project has been baselined and the project starts, then it needs to be directed. This next series of documents deals with the "control" of the project after it has begun. This involves processes that need to be in place to ensure that the project progresses according to plan. During tracking, monitoring, and reviewing, the project team collects data to assess the current state of the project. These activities include:

- Review the completed activities.
- Identify milestones reached.
- Identify problems or issues.
- Update project schedule and progress information.
- Update budget and variances.

Additional project controls are taken, as needed, following an assessment of actual to planned execution. Project controls include:

- Addressing issues.
- Reviewing change requests and making recommendations.
- Preparing action plans.
- Rescheduling.
- Reallocating resources.
- Adding resources and/or equipment.

The next figure presents a graphic view of the project control process.

Project Control Process

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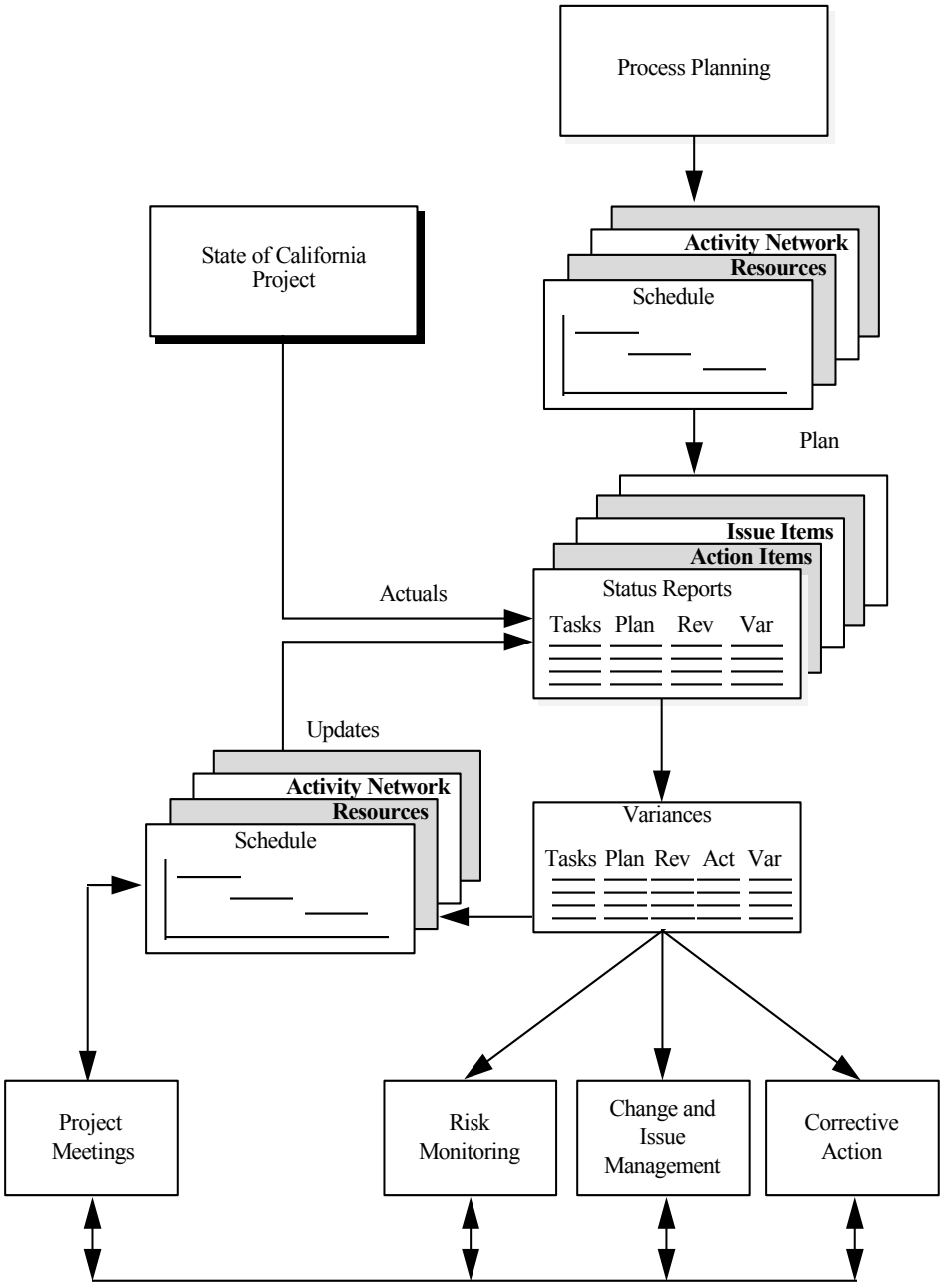

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Preventing Problems is a Better Course than Fixing Them

Projects fail due to inattention to basic control principles. Too many times the project team is busy getting on with "completing the project" and not spending the time and energy to anticipate problems. Then, once a problem is suspected, the team acts too slowly to resolve the root of the problem.

The reason for these project management methods is to "prevent" project development problems. Preventing problems is far easier and less costly than solving them, and the best way to locate a problem is to always be looking for it. For example, frequent and unchecked changes to the requirements specifications are a known leading source for design problems. Listed below are some potential problems that may arise.

- Lack of good data on activity progress.
- Inadequate definition of requirements.
- Frequent and uncontrolled changes to the baselined requirements.
- Poor time and cost estimates.
- Difficulties in concluding the project because of lack of completion criteria.
- Frequent replacement of development personnel.
- Inadequate tracking and directing of project activities.

Once a project has started, one of the most common problems is that the project manager, and possibly the full project team, is unaware of the existence of a major problem at a stage when it could be contained and corrected. This can be resolved by the consistent sharing of information and taking action based on that information.

Which Projects Need Control?

The tracking, monitoring, and reviewing processes apply in varying degrees to all projects: small, medium or large. As in all the sections of this document, caution should be taken not to use the processes as a "recipe," but to analyze the specific project and develop management structures that best meet the needs of the project. These are suggested guidelines that should be tailored to the specific project and state organization.

References:

Many of the referenced status reports and other documents discussed in the next series of sections are provided for use in Appendix B: *Templates & Sample Forms.*